

SEQUENCE LISTING

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MATSUNAMI , Katsuyoshi

<120> HLA-E CHIMERIC MOLECULE

<130> 2520-0132PUS1

<140> US 10/578,139

<141> 2006-05-03

<160> 92

<170> PatentIn version 3.4

<210> 1

<211> 21

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 1

Met Val Asp Gly Thr Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

<210> 2
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain of HLA-E

<400> 2

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg

35

40

45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 3

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-E

<400> 3

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Ser Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 4

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-E

<400> 4

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 5

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-E

<400> 5

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 6
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 6
atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg 60
gcgc 63

<210> 7
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain of HLA-E

<400> 7
ggctcccaact ctttgaagta tttccacact tccgtgtccc ggccggccc cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgccgttcga caacgacgccc 120
gcgagtcgcga ggatggtgcc ggccggccc tggatggagc aggaggggtc agagtattgg 180
gaccgggaga cacgggacgcg cagggacacc gcacagattt tccgagtgaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 8
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-E

<400> 8
gggtctcaca ccctgcagtg gatgcattggc tgccgagctgg ggccgcacag ggcgtttcctc 60
cgccgggtatg aacagttcgc ctacgcggc aaggatttac tcaccctgaa tgaggacctg 120
cgctcctgga ccgcgggtgga cacggcggct cagatctccg agcaaaagtc aatgtgccc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gctgtggagtg gctccacaaa 240

tacctggaga	agggaaagga	gacgctgctt	cacctg	276			
<210> 9							
<211> 276							
<212> DNA							
<213> Artificial Sequence							
<220>							
<223> Description of Artificial Sequence: Synthetic chimeric sequence							
a3 domain of HLA-E							
<400> 9							
gagccccc	aa	agacacacgt	gactcaccac	cccacatctgt	accatgaggc	caccctgagg	60
tgctggcc	ccc	tggcctcta	cctgcggag	atcacactgt	cctggcagca	ggatgggag	120
ggccat	accc	aggacacgga	gctcgtggag	accaggcctg	cagggatgg	aaccttccag	180
aagtggcag		ctgtggtgtt	gccttctgga	gaggagcaga	gatacacgtg	ccatgtgcag	240
catgaggggc		tacccgagcc	cgtcaccctg	agatgg			276
<210> 10							
<211> 192							
<212> DNA							
<213> Artificial Sequence							
<220>							
<223> Description of Artificial Sequence: Synthetic chimeric sequence							
Transmembrane domain of HLA-E							
<400> 10							
aagccggc	ttt	ccca	catccccatc	gtgggcatca	ttgctggcct	ggtttcctt	60
ggatctgtgg	tct	tggagc	tgtggttgt	gctgtat	ggaggaagaa	gagctcagg	120
ggaaaaggag	ggagctactc	taaggctgag	tggagc	gaca	gtgcccagg	gtctgagtct	180
cacagcttgt	aa						192
<210> 11							
<211> 24							
<212> PRT							
<213> Artificial Sequence							
<220>							
<223> Description of Artificial Sequence: Synthetic chimeric sequence							
SP of HLA-G1							
<400> 11							

Met Val Val Met Ala Pro Arg Thr Leu Phe Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 12
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain of HLA-G1

<400> 12

Gly Ser His Ser Met Arg Tyr Phe Ser Ala Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Met Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ser Ala Cys Pro Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Val Glu Gln Gly Pro Glu Tyr Trp Glu Glu Glu Thr
50 55 60

Arg Asn Thr Lys Ala His Ala Gln Thr Asp Arg Met Asn Leu Gln Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 13
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-G1

<400> 13

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 14

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-G1

<400> 14

Asp Pro Pro Lys Thr His Val Thr His His Pro Val Phe Asp Tyr Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Ile
20 25 30

Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Val Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Leu Met Leu Arg Trp

85

90

<210> 15
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-G1

<400> 15

Lys Gln Ser Ser Leu Pro Thr Ile Pro Ile Met Gly Ile Val Ala Gly
1 5 10 15

Leu Val Val Leu Ala Ala Val Val Thr Gly Ala Ala Val Ala Ala Val
20 25 30

Leu Trp Arg Lys Lys Ser Ser Asp
35 40

<210> 16
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-G1

<400> 16
atggtgtca tggcgcccg aaccctttc ctgctgtct cggggccct gaccctgacc 60
gagacctggg cg 72

<210> 17
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain of HLA-G1

<400> 17
ggctccact ccatgaggta tttcagcgcc gccgtgtccc ggccggccg cggggagccc 60
cgcttcatcg ccatgggcta cgtggacgac acgcagttcg tgcggttcga cagcgactcg 120

gcgtgtccga	ggatggagcc	gcggggcgcg	tgggtggagc	aggaggggcc	agagtattgg	180
gaagaggaga	cacggaacac	caaggcccac	gcacagactg	acagaatgaa	cctgcagacc	240
ctgcgcggct	actacaacca	gagcggagcc				270
<210> 18						
<211> 276						
<212> DNA						
<213> Artificial Sequence						
<220>						
<223> Description of Artificial Sequence: Synthetic chimeric sequence						
a2 domain of HLA-G1						
<400> 18						
agtcttcaca	ccctccagtg	gatgattggc	tgcgacctgg	ggtccgacgg	tcgcctcctc	60
cgccggatcg	aacagtatgc	ctacgatggc	aaggattacc	tcgcctgaa	cgaggacctg	120
cgctcctgga	ccgcagcgg	cactgcggct	catagtcctca	agcgcgaatgt	tgaggcggcc	180
aatgtggctg	aacaaaggag	agcctacctg	gagggcacgt	gcgtggagtg	gctccacaga	240
tacctggaga	acgggaagga	gatgctgcag	cgcgcg			276
<210> 19						
<211> 276						
<212> DNA						
<213> Artificial Sequence						
<220>						
<223> Description of Artificial Sequence: Synthetic chimeric sequence						
a3 domain of HLA-G1						
<400> 19						
gccccccca	agacacacgt	gaccacaccac	cctgtctttg	actatgggc	caccctgagg	60
tgctggggcc	tgggtttcta	ccctgcggag	atcatactga	cctggcagcg	ggatggggag	120
gaccagaccc	aggacgtgga	gctcggtgg	accaggcctg	caggggatgg	aacttccag	180
aagtgggcag	ctgtgggtgt	gccttctgga	gaggagcaga	gatacacgtg	ccatgtcag	240
catgaggggc	tgccggagcc	cctcatgtg	agatgg			276
<210> 20						
<211> 123						
<212> DNA						
<213> Artificial Sequence						

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-G1

<400> 20
aagcagtctt ccctgcccac catccccatc atgggtatcg ttgctggcct ggttgtcctt 60
gcagctgtac tcaactggagc tgcggtcgct gctgtgtgtt ggagaaagaa gagtcagat 120
tga 123

<210> 21
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 21
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 22
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 22
Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 23

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 23

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 24

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 24

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 25

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 25

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 26

<211> 72

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<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Description of Artificial Sequence: Synthetic chimeric sequence
        Reformed SP

<400>  26
atggcggtca tggcgcccg aaccctcgta ctgctactct cggggccct gaccctgacc      60
gagacctggg cg                                72

<210>  27
<211>  270
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Description of Artificial Sequence: Synthetic chimeric sequence
        a1 domain

<400>  27
ggctcccaact ctttgaagta tttccacact tccgtgtccc ggcccgcccg cggggagccc      60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcattca caacgacgcc      120
gcgagtcgca ggtatggtgcg cggggcccg tggatggac aggaggggtc agagtattgg      180
gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg      240
ctgcgcggct actacaatca gagcgaggcc                                270

<210>  28
<211>  276
<212>  DNA
<213>  Artificial Sequence

<220>
<223>  Description of Artificial Sequence: Synthetic chimeric sequence
        a2 domain

<400>  28
agtctcaca ccctccatgt gatgattggc tgcgacactgg ggtccgacgg tcgcctcctc      60
cgcggttatg aacagtatgc ctacgatggc aaggattacc tcgcctgaa cgaggacctg      120
cgctcctgga cgcgacggc cactgcggct cagatctcca agcgcaagtg tgaggcggcc      180
aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga      240
tacctggaga acggaaagga gatgctgcag cgccgcg                                276

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<210> 29
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 29
 gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctggggcc tgggcttcta ccctgcggag atcacactgat cctggcagca ggatggggag 120
 ggccataccg aggacacggc gctcggtggag accaggcctg cagggatgg aaccttccag 180
 aagtgggcag ctgtgggtggt gccttctggg aaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 30
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 30
 aagccggctt cccagccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
 ggatctgtgg tctctggagc tgggttgct gctgtatat ggaggaagaa gagctcagg 120
 gggaaaggag ggactactc taaggctgag tggagcaca gtgcccagggt ctgtgagtc 180
 cacagcttgtaa 192

<210> 31
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Reformed SP

<400> 31
 Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
 1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 32
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 32

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 33
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 33

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 34

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 34

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 35
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 35
Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 36
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 36
atggcggtca tggcgcccg aaccctcgtc ctgctactct cggggccct gaccctgacc 60
gagacctggg cg 72

<210> 37
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 37
ggctcccaact ccttgaagta tttccacact tccgtgtccc ggccggccg cggggagccc 60

cgcttcatct ctgtgggcta cggtggac acccagttcg tgcgcttcga caacgacgccc 120
 gcgagtccga ggatggtgcc gcgggcgcgg tggatggagc aggaggggtc agatgttgg 180
 gaccgggaga cacggggcgcg caggacacc gcacagattt tccgagtgaa tctgcggacg 240
 ctgcgcggct actacaatca gagcgaggccc 270

<210> 38
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence a2 domain

<400> 38
 gggtctcaca ccctgcagtg gatgcattggc tgcgagctgg ggcggacag gcgcttcctc 60
 cgcgggtatg aacagttcgc ctacgcacggc aaggattatc tcacccctgaa tgaggacctg 120
 cgctccttggc cccgcgttggc cactgcggct cagatctcca agcgcaagtg tgaggcggcc 180
 aatgtggctg aacaaaggag agcctacactg gagggcacgt gcgtggagtg gtcacacaga 240
 tacctggaga acgggaaggaa gatgcgtgcag cgccgc 276

<210> 39
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence a3 domain

<400> 39
 gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctggggcc tgggttctta ccctgcggag atcacactgaa cctggcagca ggatggggag 120
 ggcctatccc aggacacggc gctcgtggag accaggccctg cagggatgg aaccttccag 180
 aagtgggcag ctgtgggtggt gccttcttggc gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 40
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 40
aaggccgctt cccagccccac catccccatc gtgggcata tcgtggcctt ggttctcctt 60
ggatctgtgg tctctggagc tctgtgtat gggagaagaa gagctcagg 120
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccagg 180
cacagcttgt aa 192

<210> 41
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 41
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 42
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 42
Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg

35

40

45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 43

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 43

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 44

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 44

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 45

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 45

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

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<210> 46
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
      Reformed SP

<400> 46
atggcggtca tggcgcccg aaccctcgct ctgctactct cggggggccct gaccctgacc      60
gagacctggg cg                                         72

<210> 47
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
      al domain

<400> 47
ggctcccaact ccttgaagta tttccacact tccgtgtccc ggcccgccg cggggagccc      60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcgttca caacgacgccc 120
gcgagttccga gatggtgcc gggggcccg tggatggagc aggaggggtc agatgtattgg 180
gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc                                         270

<210> 48
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
      a2 domain

<400> 48
gggtctcaca ccctgcagtg gatgcattggc tgcgagctgg ggcccgacag ggcgttcctc      60
cgcggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctccctgga ccgcgggtgga cactgcggct cagatctcca agcgcacatg tgaggcgcc 180
tctgaggccg agcaccagag agcctacatg gaagacacat gctgtggatg gctccacaaa 240

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tacctggaga	aggggaagga	gacgctgctt	cacctg	276		
<210> 49						
<211> 276						
<212> DNA						
<213> Artificial Sequence						
<220>						
<223> Description of Artificial Sequence: Synthetic chimeric sequence						
a3 domain						
<400> 49						
gagcccccaa	agacacacgt	gactcaccac	cccatctctg	accatgaggc	caccctgagg	60
tgctggggcc	tgggcttcta	ccctgcggag	atcacactgta	cctggcagca	ggatggggag	120
ggccatacc	aggacacgga	gctcgtggag	accaggcctg	caggggatgg	aaccttccag	180
aagtgggcag	ctgtggtgtt	gccttctgga	gaggagcaga	gatacacgtg	ccatgtgcag	240
catgaggggc	tacccgagcc	cgtcaccctg	agatgg			276
<210> 50						
<211> 192						
<212> DNA						
<213> Artificial Sequence						
<220>						
<223> Description of Artificial Sequence: Synthetic chimeric sequence						
Transmembrane domain						
<400> 50						
aaggccggctt	cccaagccac	catccccatc	gtgggcatca	ttgctggcct	ggttctccctt	60
ggatctgtgg	tctctggagc	tgtggttgt	gctgtat	ggaggaagaa	gagtcaggt	120
ggaaaaggag	ggagctactc	taaggctgag	tggagcgaca	gtgcccagg	gtctgagtc	180
cacagcttgt	aa					192
<210> 51						
<211> 21						
<212> PRT						
<213> Artificial Sequence						
<220>						
<223> Description of Artificial Sequence: Synthetic chimeric sequence						
SP of HLA-E						
<400> 51						

Met Val Asp Gly Thr Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

<210> 52
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 52

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 53
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 53

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 54

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 54

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp

85

90

<210> 55
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 55

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 56
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 56
atggtagatg gaaccctcct tttactcctc tccggaggccc tggcccttac ccagacctgg 60

gcg 63

<210> 57
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 57
ggctccact ctttgaagta tttccacact tccgtgtccc ggccggccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgttca caacgacgccc 120
gogagttccga ggatggtgcc cgccggccg tggatggagc aggaggggtc agagtattgg 180
gaccgggaga cacggagcgc caggacacc gcacagattt tccgagtcaa tctgcggacg 240
ctgcgcggct actacaatca gagcggaggcc 270

<210> 58
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 58
gggtctcaca ccctgcagt gatgcattggc tgcgagctgg ggcccgacag ggcgttcctc 60
cgccgggtatg aacagttcgc ctacgacggc aaggattatc tcacccctgaa tgaggacgt 120
cgctcttggaa ccgcgggtgaa cacggcggtc cagatctccg agcaaaatgt taatgtatgccc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtgcgtccacaaa 240
tacctggaga agggaaagga gacgctgtt cacctg 276

<210> 59
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 59
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
tgctggggcc tgggttctta ccctgcggag atcacactga cctggcagca ggatggggag 120
ggccataccaggacacacgga gctcgtggag accaggctg cagggatgg aaccttccag 180
aagtggcag ctgtgggtgt gccttctgaa gaggagcaga gatacacgtg ccatgtgcag 240
catggggc tacccgagcc cgtcaccctg agatgg 276

<210> 60

<211> 192

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 60
aagccggctt cccagccac catccccatc gtgggcata ttgctggcct ggttctcctt 60
ggatctgtgg tctctggagc tctgggtgt gctgtatat ggagaagaa gagctcaggt 120
ggaaaaggag ggagctactc taaggcttag tggagcaca gtgcccaggg gtctgagtt 180
cacagcttgt aa 192

<210> 61

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 61

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 62

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 62

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 63

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 63

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 64

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 64

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 65

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 65

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 66
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 66
atggcggtca tggcgccccc aaccctcgtc ctgctactct cggggggccct gaccctgacc 60
gagacctggg cg 72

<210> 67
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 67
ggctcccaact ccttgaagta tttccacact tccgtgtccc ggcccgcccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcattcg caacgacgccc 120
gcgagttccga ggtatgggcc gcggggcccg tggatggagc aggaggggtc agatgtattgg 180
gaccggggaga cacgggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 68
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 68
gggtctcaca ccctgcagtg gatgcattggc tgcgagctgg ggcccgacag ggcgttcctc 60
cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120

cgctcctgga ccgcgggtgga cacggcggt cagatctccg agcaaaagtg taatgatgcc 180
 tctgaggcg agcaccagag agcctacctg gaagacacat gcgtggagt gctccacaaa 240
 tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 69
 <211> 276
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 a3 domain

<400> 69
 gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
 tgctggggcc tgggcttcta ccctgcggag atcacaactga cctggcagca ggatggggag 120
 ggccatacccg aggacacggg a gctcgtggag accaggctg cagggatgg aaccttccag 180
 aagtgggcag ctgtgggtgt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
 catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 70
 <211> 192
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 Transmembrane domain

<400> 70
 aagccggctt cccagccac catcccccattc gtgggcatca ttgctggctt ggttctcctt 60
 ggatctgtgg tctctggagc tgggttgtct gctgtatat ggaggaagaa gagtcagggt 120
 ggaaaaggag ggagctactc taaggctgag tggagcaca gtgcggcagg gtctgatct 180
 cacagcttgt aa 192

<210> 71
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic chimeric sequence
 SP of HLA-E

<400> 71

Met Val Asp Gly Thr Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

<210> 72

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 72

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 73

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 73

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 74

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 74

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 75
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 75

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 76
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 76
atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg 60
gcg 63

<210> 77
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence

al domain

<400> 77
ggctccact ccttgaagta tttccacact gccgtgtccc ggcccgccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcgttca caacgacgccc 120
gcgagtcgca ggtatggtgcc gccccggccg tggatggagc aggaggggtc agatgtattgg 180
gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 78
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 78
gggtctcaca ccctgcagt gatgcattgc tgcgagctgg gccccgacag gcgcttcctc 60
cgccgggtatg aacagttcgc ctacgacggc aaggattatc tcacccctgaa tgaggacctg 120
cgctcctgga ccgcgggtgga cacggcggtt cagatctccg agcaaaatgt taatgtatggc 180
tctgaggcgg agcaccagag agcctacctg aaagacacat gcgtggagtg gctccacaaa 240
tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 79
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 79
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggg caccctgagg 60
tgctggggcc tgggcttcta ccctgcggag atcacactga cctggcagca ggtatggggag 120
ggccatcaccc aggacacggc gctcgtggag accaggccctg cagggatgg aaccttccag 180
aagtgggcag ctgtgggtgt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
catgaggggc taccggagcc cgtcaccctg agatgg 276

<210> 80
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 80
aagccggctt cccagccac catccccatc gtgggcata ttgctggcct ggtttcctt 60
ggatctgtgg tctctggagc tgtggttgtc gctgtatat ggaggaagaa gagctcagg 120
ggaaaaggag gtagctactc taaggcttag tggagcgcaca gtgcccaggg gtctgagtct 180
cacagcttgt aa 192

<210> 81
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 81
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 82
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 82
Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 83

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 83

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 84
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 84

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 85
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 85

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys

35

40

45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 86
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 86
atggcggtca tggcgccccc aaccctcgtc ctgctactct cggggccct gaccctgacc 60
gagacctggg cg 72

<210> 87
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 87
ggctcccaact ccttgaagta tttccacact gccgtgtccc ggcccgcccg cggggagccc 60
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gcgagtcgca ggatggtgcc cggccggcccg tggatggagc aggaggggtc agatgtattgg 180
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<210> 88
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

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cgctcctgga ccgcgggtgga cacggcggtc cagatctccg agcaaaagtg taatgtgcc	180
tctgaggcg agcaccagag agcctacctg gaagacacat gcgtggagt gctccacaaa	240
tacctggaga agggaaagga gacgctgctt cacctg	276
<210> 89	
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ggccataccg aggacacggg gctcgtggag accaggcctg caggggatgg aaccttccag	180
aagtgggcag ctgtggtggt gcctctgga gaggagcaga gatacacgtg ccatgtgcag	240
catgaggggc tacccgagcc cgtcaccctg agatgg	276
<210> 90	
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Transmembrane domain	
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ggaaaaggag ggactactc taaggctgag tggagcaca gtgccagg gtctgagtct	180
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<213> Artificial Sequence	

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<220>
<223> Description of Artificial Sequence: Synthetic HLA leader peptide
<400> 91
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<210> 92
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic HLA leader peptide
<400> 92
Val Met Ala Pro Arg Thr Leu Phe Leu
1           5
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